



August 30, 2019

Elizabeth Keating
Executive Deputy Inspector General
One Penn Plaza, 11th Floor
New York, NY 10119

**Re: NYC Transit Fare Evasion Surveys: OIG Concerns
MTA/OIG #2019-12**

Dear Ms. Keating:

This is in reply to the MTA Office of the Inspector General's audit of New York City Transit's Fare Evasion Survey preliminary findings letter dated July 2, 2019. New York City Transit Operations Planning (NYCT OP) has reviewed the letter and appreciates the insights and information provided by the MTA OIG. NYCT OP has been actively bolstering the fare evasion monitoring program and improving the methodology of its surveys. At the December 2018 Finance Committee meeting, NYCT stated that observed evasion rates likely constitute an undercount due to the human factors which make fare evasion monitoring challenging, which the MTA OIG's findings confirm. Recently implemented and planned upgrades to fare evasion monitoring address issues confirmed by MTA OIG, and actually go beyond the MTA OIG's recommendations.

The two sections below outline changes being made to fare evasion monitoring at NYCT, starting with subway and then buses.. Specific MTA OIG findings are referenced throughout.

The Subway Fare Evasion (SFE) Survey

NYCT OP has sought to improve the monitoring of subway fare evasion by:

Reallocating additional resources to evasion monitoring and changing the way checks are assigned to checkers to improve efficiency

Historically, SFE observations were made by members of the Passenger Environment Survey (PES) checker cadre, though the checkers in this team spent most of their time on PES checks. In order to provide more frequent and precise updates on SFE, NYCT OP reassigned staff previously assigned to PES checks to SFE this past spring. As of July 2019, broader

reassignments were made with the new pick, enabling the establishment of a combined subway and bus fare evasion cadre, with several times more checkers assigned to fare evasion and with checkers exclusively devoted to fare evasion monitoring as opposed to splitting their time with other duties. Additionally, changes to the way checks are assigned should substantially increase the proportion of checkers' time spent monitoring evasion, as opposed to moving between observation locations. With the increased scale, schedulers can now often assign checkers to multiple nearby locations (before, the smaller number of checks each day were intentionally spread out). This increased efficiency enables the checks themselves to double in length from 30 minutes to 60 minutes.

In combination, these changes should both lower the needed number of checks to obtain the same level of precision (due to the longer checks) and increase the number of checks performed (due to the reallocated resources), directly addressing the MTA OIG's concerns regarding sample completion [Concerns about SFE Survey Design: 2]. Sharing resources between SFE and BFE enables schedulers to better respond to long term absences, another concern MTA OIG had raised [Concerns about SFE Data Collection Practices: 5].

Additionally, the formation of a dedicated fare evasion cadre enables the checkers to operate without uniforms, directly addressing MTA OIG's concerns about the presence of uniformed staff impacting evasion rates [Concerns about SFE Data Collection Practices: 4]. Prior to July 2019, SFE checkers wore uniforms because their other checks required them.

Updating the list of Fare Control Areas (FCAs) drawn from in samples to ensure more accurate counts and make it easier for checkers to locate FCAs

In response to recent construction, as well as feedback from checkers and their supervisors, NYCT OP worked with the Automated Fare Collection (AFC) back office and NYCT Office of Management and Budget (OMB) to create a new expanded list of fare control areas (FCAs) that splits out over a hundred additional FCAs. These additional FCAs enable checkers to have better sightlines and hence to collect more accurate data. This addresses sightline concerns expressed by the MTA OIG [Concerns about SFE Data Collection Practices: 1].

Additionally, checkers are now provided with more guidance to locate their assigned FCA, including, when available, a list of all the labels they will find on gates in the FCA. Checkers are instructed to count entries through all gates in their FCA, contrary to the concern expressed by MTA OIG [Concerns about SFE Data Collection Practices: 2].

Reducing the level of complexity and ambiguity in the fare evasion survey by simplifying it

In response to feedback on the complexity of checks from checkers and their supervisors, OP reached out to other departments and developed a consolidated set of categories which still satisfy requirements for reporting to the MTA Board as well as the Federal Transit

Administration, without the need to make difficult and unnecessary distinctions (e.g., which key was used to open a gate, whether evasion through a gate was “opportunistic” or “deliberate”). This consolidation should enable checkers to focus on identifying evasion as opposed to trying to discern the details of a particular evader’s behavior. The new categories became effective in July 2019. This addresses concerns regarding complexity expressed by MTA OIG [Concerns about SFE Data Collection Practices: 1]. It is important to note that while some categories used prior to July were difficult to differentiate, they were added together before being reported, which mitigated the impact on results.

Improving the level of training and guidance provided to checkers

As a complement to the simplification of SFE categories monitored by checkers, all checkers in the newly formed SFE/BFE cadre underwent an intensive training (or were retrained) during the first two weeks of July. They were given both classroom and field training on the fare evasion monitoring process, including the newly simplified set of categories. Newly updated paper forms include notes to remind checkers of the new category definitions. OP agrees that having additional written documentation could be helpful for checkers and is currently in the process of developing it. These improvements address concerns on training and documentation raised by MTA OIG [Concerns about SFE Data Collection Practices: 3].

Increasing the sophistication of data validation applied to observation results

NYCT OP continuously seeks to improve the quality of SFE results. Toward that end, OP analysts have developed automated reports to catch potential data issues and flag them for manual review. OP continues to develop and refine these reports as the scale and nature of the monitoring process evolves. While the data itself cannot validate improved tracking of fare evasion, since we do not have the true population fare evasion rate to compare to, we do hope that the changes we made to parts of the sampling process result in a lower margin of error. We are able to directly observe and track this, and we will continue to monitor it over time.

Intensifying field supervision to ensure accurate data collection

NYCT OP has increased the number of SFE/BFE supervisors from 1 to 3, and will increase to 4 supervisors effective in September 2019. Supervisors’ shifts will cover 24 hours a day, 7 days a week, visiting checkers in the field and conducting parallel checks to ensure data quality. Additionally, supervisors follow up on reports of problems collecting data. NYCT OP is also exploring additional means of supervision, including the tracking of AFC swipes of checkers to ensure they are at the correct FCA at the correct time and the use of video to confirm results.

The Bus Fare Evasion (BFE) Survey

NYCT OP has sought to improve the monitoring of bus fare evasion by:

Shifting additional resources to BFE monitoring and forming a dedicated evasion cadre

As discussed above, OP has increased the number of checkers conducting fare evasion surveys and formed a dedicated SFE/BFE cadre. The additional checker resources allow more flexibility for scheduling when there are long-term absences and should improve sample completion. This addresses concerns regarding checker availability raised by MTA OIG [Concerns about BFE Data Collection Practices: 1].

Reducing the level of complexity and ambiguity in the fare evasion survey by simplifying it

Similar to the effort described above for the subway fare evasion survey, OP has reached out to other departments and developed a consolidated set of categories which still satisfy requirements for reporting to the MTA Board as well as the Federal Transit Administration, without the need to make difficult and unnecessary distinctions. This simplification of the survey should enable checkers to better focus on identifying evasion. The new categories are expected to be implemented this year. This addresses concerns regarding complexity expressed by MTA OIG [Concerns about BFE Data Collection Practices: 2].

Revising the sample generation process to improve completeness and balance

NYCT OP is still revising the approach for generating a sample of trips to observe, with the goal of fully sampling those trips identified, recognizing practical constraints will sometimes prevent small numbers of samples from being observed (e.g., station closures, changes to staff availability). Improvements could include better alignment with the SFE process and the MTA Bus monitoring process. MTA OIG also expressed some concerns around the use of picks to define sample sets of trips [Concerns about BFE Survey Design: 1]. The sample has been built around bus operator picks due to realities that go beyond the scope of fare evasion monitoring. Sample trips from one pick simply may not exist in another, making insistence on purely monthly or quarterly samples problematic even if desirable from a purely statistical viewpoint.

Increasing the sophistication of data validation applied to observation results

As with SFE, NYCT OP has been continuously seeking to improve the quality of BFE results. Toward that end, OP analysts have developed automated reports to catch potential data issues and flag them for manual review. OP continues to develop and refine these reports as the scale and nature of the monitoring process evolves. Also, as with SFE, while the data itself cannot validate improved tracking of fare evasion, since we do not have the true population fare evasion rate, we hope that the changes to the sampling process result in a lower margin of error. We can directly observe and track this, and we will continue to monitor it over time.